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SUBJECT: **Reply Brief**

Serial No.: **U.S. Patent Application 10/020,768, filed December 12, 2001**

I hereby certify that a Reply Brief is being transmitted to the Central Facsimile Number, at the U.S. Patent and Trademark Office (Fax No. (571) 273-8300) on December 12, 2005.

December 12, 2005	**Jan Hostasa**
(Date of Deposit)	**(Name of Depositor)**
	Jan Hostasa
	(Signature)

Docket No. 25151A Patent

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application	:	
PAUL A. GEEL	:	
Ser. No. 10/020,768	:	Examiner: Jennifer A. Boyd
Filed: December 12, 2001	:	Group Art Unit: 1771

For: WET-LAID NONWOVEN REINFORCING MAT

REPLY BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Reply Brief follows the Examiner's Answer mailed October 6, 2005.

In reply, Appellant notes with appreciation the Examiner's sudden agreement at this late stage of prosecution that *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990) is not controlling on the present facts. Instead, sole reliance for the rejection of claim 1 is now placed on *In re Boesch*, 617 F.2d 272, 205 USPQ2d 215 (CCPA 1980). This decision was expressly distinguished in the record in the Request for Reconsideration, and then not mentioned by the Office in the Advisory Action (which instead relied solely on *In re Woodruff*).

Since Appellant therefore did not explicitly discuss the *Boesch* decision in the Appeal Brief, this reply is in order.

The decision of *In re Boesch* stands for the concept that discovering an optimum value of a result effective variable involves only routine skill in the art. However, the concept of "optimization" defined in *Boesch* relates strictly to the situation where the prior art actually teaches a constituent range overlapping that claimed in the patent application in issue. *See In re Boesch, supra* at 617 F.2d at 274 ("Each of the ranges of constituents in appellants' claimed alloys overlaps ranges disclosed [in the prior art].") (emphasis added). That is absolutely, totally and completely different from the present situation wherein the cited prior art, U.S. Patent 3,622,445 to Heidweiller and U.S. Patent 5,935,879 to Helwig et al., both explicitly teach a range outside the one required in claim 1, a point of fact with which the Office agrees. Thus, *In re Boesch* is factually distinguishable and not controlling for this reason alone.

This very significant distinction between the present situation and the one before the court in the *Boesch* decision was clearly set forth in the record during prosecution. Despite this, the Office now places sole reliance upon the inapposite *Boesch* decision to support the rejection, but at the same time absolutely fails to comment in any manner on Appellant's arguments respecting why this decision is not controlling (or, perhaps more importantly, cite any other decision on point). By ignoring this limitation clearly set forth by the court in the *Boesch* decision, the Office has extended this holding well beyond its intended scope and has

effectively completed an "end run" of other relevant case law which clearly establishes that the rejections in this case are improper and should be withdrawn.

There is absolutely no question that this case is not one of simple optimization within a range. The Office has already acknowledged on the record that ". . . Heidweiller discloses the claimed invention except for that the glass fibers are present in the weight of about 10 to less than 50% as required by claim 1. . . ." Significantly, the Heidweiller patent issued in 1971, almost 34 years ago.

Clearly, the use of 50% or more of glass fibers is outside of the "10 to less than 50% by weight" range set forth in independent claims 1, 22 and 24 of the present application. In essence, the applied art suggests that Heidweiller set the "industry standard" for glass fiber content in reinforcing mat products at greater than 50% back in 1971. Helwig et al. came along and filed for protection in 1996 and was still guided by and followed this industry standard of greater than 50% glass fibers (note "50 to 90% glass" at col. 2, line 31). The combination of references applied by the Office suggests that the provision of greater than 50% glass fibers has, in fact, been the industry standard up until the development of the present invention over 30 years later.

In formulating the rejection, the Office has not only misapplied and improperly relied upon the *Boesch* decision, but also is silent about the long line of cases including *In re Fine*, 5 USPQ 2d 1596 (Fed. Cir. 1988); *In re Geiger*, 2 USPQ 2d 1276 (Fed. Cir. 1987); and *In re Goodwin*, 198 USPQ 1 (CCPA 1978),

holding that "whether a particular combination might be 'obvious to try' is not a legitimate test of patentability." More specifically, on page 12 of the Answer, the Office states that,

> . . . the combined total of polyvinyl alcohol and secondary binder in the web, the amount of PET fibers, the amount of glass fibers and the diameter of the PET fiber are result effective variables. As the amount of the binder increases, the mat increases in strength and dimensional stability. As the amount of glass fibers increase, the compressive strength increases. As the amount of polyethylene terephthalate fibers increase, the tear strength increases. As the polyethylene terephthalate fiber diameter increases, the fiber becomes stronger and as the diameter decreases, the fiber becomes more pliable and softer to the touch.

Referring in part to this passage, the Answer indicates that "[t]he Office has used this reasoning to determine that the amount of glass fiber can be optimized in order to create a mat with an appropriate balance of tear and compressive strength, both concerns of floor covering." The Office then suggests that "Appellant neglected to contest the Office's reasoning" regarding why it would be "obvious to try" to make the claimed inventions based on the teachings of the prior art.

Quite the contrary, Appellant's Brief explains in convincing detail why a skilled artisan would not be motivated to arrive at the claimed inventions based on the teachings of the cited patents, and that the Office's "obvious to try" rationale has long been rejected by the courts. Stated again, this is not a case about optimization within a range, and thus the mere fact that the amount of glass fiber "can be optimized" does not make the claimed invention *prima facie* obvious in view of the prior art. The decision of *In re Boesch* does not hold otherwise, and in

fact deals with a completely different factual situation involving overlapping ranges (a point previously made by the Appellant). Contrary to the statement made in the Answer, it is the Office who has "neglected to contest" the Appellant's reasoning regarding why the *Boesch* decision is inapposite and does not justify sustaining the present rejections of record.

Further, it is significant to note that the Office has in effect failed to consider the invention as a whole by selectively picking and choosing various elements and/or concepts individually as done in the quoted passage in order to arrive at the claimed invention. Such an approach is clearly improper (see, for example, *Ex parte Clapp*, 227 USPQ 972 (Bd. Pat. App. & Int. 1985).

When considered against the proper factual and legal backdrop, claims 1, 22 and 24 very clearly patentably distinguish over the cited prior art. These claims read on a wet-laid nonwoven reinforcing mat and explicitly recite a base web including about 10 to less than 50 percent by weight glass fibers. The Heidweiller and Helwig et al. patents explicitly teach that a web must include 50% or more glass fibers. This diverges from and teaches away from the present invention and, therefore, supports the patentability of these claims. See *In re Fine*, 5 USPQ 2d 1596, 1599 (Fed. Cir. 1988). Since the decision in *In re Boesch* only relates to the situation where the claimed range overlaps the range explicitly taught in the prior art, the *Boesch* decision is irrelevant to the present fact pattern and any reliance on that decision is improper.

Finally, with regard to the Office's continued assertions that the range of "about 12" microns in the claims is met by the Heidweiller patent, Appellant emphasizes that the Office's entire position is based on the assumption that the polyethylene glycol terephthalate (PETG) fibers mentioned in Example II of that patent have a density of 1.38 g/cm³. Even if this is the correct density for PET, no evidence in the record establishes that PETG and PET have precisely the same density. In this regard, it is noted that the Office took the much different position in the Office Action of June 17, 2003 that the density of PET is 1.22 g/cm³ (see page 3, first full paragraph). However, in response to Appellant's subsequent claim amendment, the Office curiously "assumed" a value of 1.38 g/cm³. This was done without comment as to the reason for the sudden change or positive citation to any reference supporting the accuracy of that "revised" density value, which of course is inexcusable. *See In re Hoch*, 428 F.2d 1341, 166 USPQ 406 (CCPA 1970) ("[W]hen a reference is relied on to support a rejection, whether or not in a 'minor capacity,' there would appear to be no excuse for not positively including the reference in the statement of rejection.").

Inserting the 1.22 g/cm³ value rather than the higher figure proposed for the first time in the final Office Action in the formula supplied by the Office yields a fiber diameter of about 13.2 microns. Clearly, this is not "about 12" microns and, in fact, is off by almost 10%. Instead of pondering whether it is possible that the "about 12" claim limitation is met in this case using the Office's "assumptions" based on uncited references (neither of which constitute the requisite "substantial

evidence"), Appellant respectfully requests that the Board find that a wet-laid nonwoven reinforcing mat including 10–50% glass fibers and PET fibers having a diameter from about 6 to about 12 microns, is neither taught or suggested in the prior art of record. Thus, all claims should be held allowable.

In summary, Appellant has addressed and met every rejection set forth in the final Office Action, and no new grounds of rejection arise in the Examiner's Answer. Upon careful review of the cited references in light of these comments, it is believed that the Board will agree that all of the presently pending claims patentably distinguish over the prior art and should be formally allowed. Accordingly, it is respectfully requested that the rejections of the Examiner relating to claims 1-8 and 11-24 be reversed and that the present application be remanded to the Examiner for allowance.

Respectfully submitted,

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Date: 12-6-05

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